

REMARKS

The present application still comprises thirty-one (31) claims, numbered 1, 3-18, 20, 21, 23-33 and 35.

No amendments have been made.

1. Rejection of Claims 1, 5-8, 21 and 23-28 under 35 USC 103

On page 2 of the Office Action, the Examiner rejected claims 1, 5-8, 21 and 23-28 under 35 USC 103(a) as being unpatentable over U.S. Patent 5,987,304 to Lätt (hereinafter referred to as "Lätt") in view of U.S. Patent 4,794,458 to Nagatomi (hereinafter referred to as "Nagatomi").

As discussed below, the Applicants respectfully traverse this rejection and submit that claims 1, 5-8, 21 and 23-28 are in allowable form.

Independent claim 1

Claim 1 is reproduced below with certain elements being emphasized:

A variable bandwidth transmission device comprising:

- a) a first input for receiving a message bearing signal characterized by a bandwidth that is variable;
- b) a second input for receiving a bandwidth control signal characterized by a frequency, the frequency being variable as a function of the bandwidth of the message bearing signal;
- c) a filtering stage for processing the message bearing signal and the bandwidth control signal to generate an output signal characterized by a bandwidth, said filtering stage being responsive to a change of frequency of the bandwidth control signal to alter the bandwidth of the output signal;
- d) a bandwidth control signal source connected to said second input for supplying the bandwidth control signal; and
- e) control logic coupled to said bandwidth control signal source, **said control logic being operative for detecting a change of the bandwidth of the message bearing signal and for causing said bandwidth control signal source to change the frequency of the bandwidth control signal on a basis of the detected change.**

It is respectfully submitted that Lätt and Nagatomi, whether taken separately or in combination, do not teach or suggest the above-emphasized elements of claim 1. Specifically, Lätt and Nagatomi do not teach or suggest the claimed control logic operative for (1) detecting a change of a bandwidth of a message bearing signal and (2) causing a bandwidth control signal source to change a frequency of a bandwidth control signal on a basis of the detected change of the bandwidth of the message bearing signal.

Firstly, as conceded by the Examiner, Lätt does not teach or suggest the claimed control logic.

Now, in an attempt to remedy this deficiency of Lätt, the Examiner has introduced Nagatomi. However, and as shown below, Nagatomi does not teach the claimed control logic, which the Examiner concedes is absent from Lätt.

Nagatomi describes a modulation device that processes input video and audio signals to produce a TV broadcast signal at a predetermined frequency. Nagatomi is totally unconcerned with, and does not teach or suggest, detecting a change in bandwidth of any of the input video and audio signals. Rather, Nagatomi's device knows *a priori* the predetermined frequency of the TV broadcast signal to be produced and, based on this knowledge of the predetermined frequency, controls a variable oscillator and a variable low-pass filter in order to produce the TV broadcast signal at the predetermined frequency without any frequency component higher than that predetermined frequency. Simply put, Nagatomi's device operates on a basis of a known predetermined frequency of an output signal to be produced, and in no way detects a change in bandwidth of an input signal (col. 2, lines 27-47; col. 3, line 36 to col. 4, line 8; and col. 4, lines 15-21). Clearly, therefore, Nagatomi does not teach or suggest the claimed element of detecting a change of the bandwidth of a message bearing signal.

Since it does not teach or suggest detecting a change of the bandwidth of a message bearing signal, Nagatomi cannot possibly teach or suggest performing any action based on such a

change that is not even detected. As such, one necessarily concludes that Nagatomi also does not teach or suggest the claimed element of causing a bandwidth control signal source to change the frequency of a bandwidth control signal on a basis of a detected change of the bandwidth of the message bearing signal.

In summary, therefore, it should be apparent that Lätt and Nagatomi are deficient in similar ways, in that neither reference discloses or suggests detecting a change of the bandwidth of a message bearing signal, ultimately resulting in a change in the frequency of a bandwidth control signal used to vary the bandwidth of the output of a filtering stage used to process the message bearing signal.

In view of the failure of Lätt and Nagatomi to teach all of the elements of claim 1, it is respectfully submitted that a *prima facie* case of obviousness has not been established¹. The Examiner is thus respectfully requested to withdraw the rejection of claim 1, which is believed to be in allowable form.

Independent claims 21 and 23

Claims 21 and 23 contain language similar to that of claim 1 and thus for the same reasons as those set forth in support of claim 1 above, the Examiner is respectfully requested to withdraw the rejection of claims 21 and 23, which are believed to be in allowable form.

Dependent claims 5-8 and 24-28

Each of claims 5-8 and 24-28 depends on claim 1 or claim 23 and therefore incorporates by reference all of the elements of that base claim, including those shown above to be absent from Lätt and Nagatomi, whether taken separately or in combination. Thus, for the same reasons as those set forth above in support of claims 1 and 23, the Examiner is respectfully

¹ For the Examiner to establish a *prima facie* case of obviousness, three criteria must be considered: (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings, (2) there must be a reasonable expectation of success, and (3) the prior art references must teach or suggest all of the claim limitations. MPEP §§ 706.02(j), 2142 (8th ed.).

requested to withdraw the rejection of claims 5-8 and 24-28, which are believed to be in allowable form.

2. Rejection of Claims 3 and 4 under 35 USC 103

On page 5 of the Office Action, the Examiner rejected claims 3 and 4 under 35 USC 103(a) as being unpatentable over Lätt and Nagatomi and further in view of U.S. Patent 5,721,756 to Liebetreu *et al.* (hereinafter referred to as "Liebetreu").

The Applicants respectfully traverse this rejection and submit that claims 3 and 4 are in allowable form.

In particular, each of claims 3 and 4 depends on claim 1 and therefore incorporates by reference all of the elements of claim 1, including those shown above to be absent from Lätt and Nagatomi, whether taken separately or in combination. It is further submitted that these elements are absent from Liebetreu, which merely provides a digital data receiver including a tunable analog conditioning circuit, whereby a variety of analog parameters of the tunable analog circuit are responsive to a signal quality indicator obtained from decoded data. As such, Liebetreu does not remedy the shortcomings of Lätt and Nagatomi.

In view of the failure of Lätt, Nagatomi and Liebetreu to teach all of the elements of claims 3 and 4 (via their dependency on claim 1), it is respectfully submitted that a *prima facie* case of obviousness has not been established. The Examiner is thus respectfully requested to withdraw the rejection of claims 3 and 4, which are believed to be in allowable form.

3. Comments on Examiner's Remarks Regarding Allowable Subject Matter

On page 6 of the Office Action, the Examiner indicated that each of claims 9-18, 20, 29-33 and 35 would be allowable if rewritten in independent form including all of the elements of its base claim and any intervening claim. The Applicants gratefully acknowledge the Examiner's remarks but respectfully submit that reformulation of claims 9-18, 20, 29-33 and

35 is not necessary given that each of these claims depends on a claim that has been argued above as being allowable. The Applicants therefore respectfully requests allowance of claims 9-18, 20, 29-33 and 35.

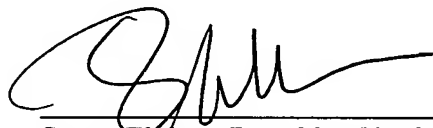
CONCLUSION

Claims 1, 3-18, 20, 21, 23-33 and 35 are believed to be in condition for allowance. Favorable reconsideration is requested. Early allowance of the present patent application is earnestly solicited.

If the claims of the present patent application are not considered to be in full condition for allowance, for any reason, the Applicants respectfully request the constructive assistance and suggestions of the Examiner in drafting one or more acceptable claims pursuant to MPEP 707.07(j) or in making constructive suggestions pursuant to MPEP 706.03 so that the application can be placed in allowable condition as soon as possible and without the need for further proceedings.

Respectfully submitted,

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